

Serial No. 09/691,163

Docket No. P-141

Amdt dated: March 31, 2005

Reply to the Advisory Action dated February 24, 2005 and the Office Action of November 2, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for handoff of a medium rate data call in a mobile communication system, comprising:

comparing a pilot strength of a BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated to a pilot strength of a BTS to which the SCH is not allocated, without comparing the pilot strengths to a predetermined threshold value;

transmitting a PSMM (Pilot Strength Measurement Message) from a mobile station to a base station including [[a]] the BTS (Base station Transceiver Subsystem) to which [[a]] the SCH (Supplemental Channel) is allocated when the [[a]] pilot strength of the BTS to which the SCH is allocated is smaller than [[a]] the pilot strength of [[a]] the BTS to which the SCH is not allocated ~~among a plurality of BTs communicating with the mobile station~~; and

performing a handoff of the SCH to the BTS to which the SCH is not allocated, according to the PSMM.

Serial No. 09/691,163
Arndt dated: March 31, 2005

Docket No. P-141

Reply to the Advisory Action dated February 24, 2005 and the Office Action of November 2, 2004

2. (Previously Presented) The method according to claim 1, wherein, for a medium rate data service, a FCH (Fundamental Channel) handoff procedure and a SCH handoff procedure are separately performed.

3. (Previously Presented) The method according to claim 2, wherein a SCH handoff is performed with respect to a predetermined number of BTSs having a pilot strength strong enough to combine both FCH and SCH pilot signals by the mobile station among the BTSs communicating with the mobile station.

4. (Currently Amended) A method for requesting a handoff of a medium rate data call of a mobile station, comprising:

measuring a pilot strength of a BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated and a pilot strength of another BTS to which the SCH is not allocated ~~among BTSs communicating with the mobile station; and~~

comparing the pilot strength of the BTS to which the SCH is allocated with the pilot strength of the another BTS to which the SCH is not allocated, without comparing the pilot strengths to a threshold; and

transmitting a PSMM (Pilot Strength Measurement Message) to a base station including the another BTS requesting a handoff, when the pilot strength of the BTS to which

Serial No. 09/691,163
Am dt dated: March 31, 2005
Reply to the Advisory Action dated February 24, 2005 and the
Office Action of November 2, 2004

Docket No. P-141

the SCH is allocated is smaller than the pilot strength of the BTS to which the SCH is not allocated as the result of the measurement.

5. (Currently Amended) A method for performing a handoff of a medium rate data call of a base station:

analyzing a PSMM (Pilot Strength Measurement Message) transmitted from a mobile station;

comparing a pilot strength of a first BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated with a pilot strength of a second BTS to which the SCH is not allocated, if the allocation of the SCH is required, without comparing the pilot strengths to other variables;

~~allocating the SCH to the BTS to which the SCH is not allocated and the BTS to which the SCH is allocated both of the first and second BTSs, if the pilot strength of the second BTS to which the SCH is not allocated is larger than the pilot strength of the first BTS to which the SCH is allocated as the result of the comparison[[],] and the pilot strength of the first BTS to which the SCH is allocated is higher than T_ADD; and~~

~~allocating the SCH to a BTS having a largest pilot strength, if the SCH is not allocated to an active BTS if analyzing the PSMM determines the SCH is not allocated to any BTS, when a DROP of the BTS to which the SCH is allocated is required.~~

Reply to the Advisory Action dated February 24, 2005 and the Office Action of November 2, 2004

6. (Currently Amended) The method according to claim 5, wherein if the pilot strength of the second BTS to which the SCH is not allocated is larger than the pilot strength of the first BTS to which the SCH is allocated, and the pilot strength of the first BTS to which the SCH is allocated is not higher than T_ADD, the allocation of the SCH to the active second BTS to which the SCH is not allocated is performed and the release of the SCH resource from the first BTS to which the SCH is allocated is performed.

7. (Currently Amended) The method according to claim 5, wherein, as the result of comparing, if the pilot strength of the second BTS to which the SCH is not allocated is larger than the pilot strength of the first BTS to which the SCH is allocated, it is judged that a new pilot signal having a pilot strength larger than the pilot strength of the BTS to which the SCH is allocated corresponding to the pilot strength of the second BTS is to be added, and if the pilot strength of the BTS of which an ADD-a handoff is to be performed is higher than a reference threshold, a handoff is performed by simultaneously allocating both FCH and SCH to the BTS of which the ADD-handoff is to be performed.

8. (Currently Amended) The method according to claim 7, wherein the reference threshold, which is a value previously set by a radio environment test, is set higher than T_ADD for the ADD handoff, and is set higher than T_DROP for a DROP handoff.

Serial No. 09/691,163
Amdt dated: March 31, 2005

Docket No. P-141

Reply to the Advisory Action dated February 24, 2005 and the
Office Action of November 2, 2004

9. (Currently Amended) The method according to claim 5, wherein ~~the a total~~
number of BTSs ~~in the active set included in an active set~~ is set to less than six.

10. (Currently Amended) A handoff method, comprising:
comparing a pilot strength of a first BTS (Base Station Transceiver Subsystem)
to which a SCH (Supplemental Channel) is allocated with a pilot strength of a second BTS to
which a SCH is not allocated, without referring to threshold values; and
performing a handoff to the second BTS when the pilot strength of the first BTS
is smaller than the pilot strength of the second BTS.

11. (Previously Presented) The method of claim 10, wherein a FCH (Fundamental
Channel) handoff procedure and a SCH handoff procedure are separately performed.

12. (Previously Presented) The method according to claim 10, wherein the SCH
handoff is performed with respect to a predetermined number of BTSs having a pilot strength
strong enough to combine both FCH and SCH pilot signals by the mobile station among the
BTSs communicating with the mobile station.